

PROPOSED AMENDMENT

Amendments to the Claims

1. (Cancelled)
2. (Amended) The method of claim 70, wherein the cardiac muscle tissue is ischemic cardiac muscle tissue.
- 3-4 (Cancelled)
5. (Amended) The method of claim 70, wherein the cardiac muscle tissue is damaged cardiac muscle tissue.
6. (Cancelled)
7. (Amended) The method of claim 5, wherein the damaged cardiac muscle tissue is an artificially created site.
8. (Amended) The method of claim 70, wherein the subject is a mammal.
9. The method of claim 8, wherein the mammal is a human.
10. (Amended) The method of claim 70, wherein the new blood vessels comprise capillaries.
11. (Amended) The method of claim 70, wherein the new blood vessels comprise collateral vessels.
12. (Cancelled)

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13. (Amended) The method of claim 71, wherein the new blood vessels comprise capillaries.
14. (Amended) The method of claim 71, wherein the new blood vessels comprise collateral blood vessels.
15. (Amended) The method of claim 71, wherein the cardiac muscle tissue is ischemic cardiac muscle tissue.
- 16-17 (Cancelled)
18. (Amended) The method of claim 71, wherein the cardiac muscle tissue is damaged cardiac muscle tissue.
19. (Cancelled)
20. (Amended) The method of claim 18, wherein the damaged cardiac muscle tissue is an artificially created site.
21. (Amended) The method of claim 71, wherein the subject is a mammal.
22. The method of claim 21, wherein the mammal is a human.
23. (Cancelled)
24. (Amended) The method of claim 72, wherein the diseased cardiac muscle tissue is ischemic cardiac muscle tissue.

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25-27 (Cancelled)

28. (Amended) The method of claim 72, wherein the new blood vessels comprise capillaries.

29. (Amended) The method of claim 72, wherein the new blood vessels comprise collateral blood vessels.

30. (Amended) The method of claim 72, wherein the subject is a mammal.

31. The method of claim 30, wherein the mammal is a human.

32. (Cancelled)

33. (Amended) The method of claim 73, wherein the diseased cardiac muscle tissue is ischemic cardiac muscle tissue.

34-36 (Cancelled)

37. (Amended) The method of claim 73, wherein the subject is a mammal.

38. The method of claim 37, wherein the mammal is a human.

39. A method of preventing heart failure in a subject which comprises:

- a) isolating autologous bone-marrow mononuclear cells from the subject; and
- b) transplanting locally into the heart an effective amount of the autologous bone-marrow mononuclear cells so as to result in formation of new blood vessels, thereby preventing heart failure in the subject.

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40. The method of claim 39, wherein the new blood vessels comprise capillaries.
41. The method of claim 39, wherein the new blood vessels comprise collateral blood vessels.
42. The method of claim 39, wherein the subject is a mammal.
43. The method of claim 42, wherein the mammal is a human.
- 44-69 (Cancelled)
70. (Re-presented -
formerly dependent
claim 3) A method of forming new blood vessels in cardiac muscle tissue in a subject
which comprises:
- a) isolating autologous bone marrow-mononuclear cells from the
subject; and
 - b) transplanting locally into the cardiac muscle tissue an effective
amount of the autologous bone-marrow mononuclear cells,
resulting in formation of new blood vessels in the cardiac muscle
tissue.
71. (Re-presented -
formerly dependent
claim 16) A method of increasing blood flow to cardiac muscle tissue in a subject which
comprises:
- a) isolating autologous bone-marrow mononuclear cells from the
subject; and

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- b) transplanting locally into the cardiac muscle tissue an effective amount of the autologous bone-marrow mononuclear cells so as to result in formation of new blood vessels in the cardiac muscle tissue, thereby increasing the blood flow to the cardiac muscle tissue in the subject.

72. (Re-presented -
formerly dependent

claim 25) A method of treating diseased cardiac muscle tissue in a subject which comprises:

- a) isolating autologous bone-marrow mononuclear cells from the subject; and
- b) transplanting locally into the diseased cardiac muscle tissue an effective amount of the autologous bone-marrow mononuclear cells so as to result in formation of new blood vessels, thereby treating the diseased cardiac muscle tissue in the subject.

73. (Re-presented -
formerly dependent

claim 34) A method of increasing angiogenesis in diseased cardiac muscle tissue in a subject which comprises:

- a) isolating autologous bone-marrow mononuclear cells from the subject; and
- b) transplanting locally into the diseased cardiac muscle tissue an effective amount of the autologous bone-marrow mononuclear cells, thereby increasing angiogenesis in the diseased cardiac muscle tissue in the subject.